

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-39. (Canceled)

Claim 40. (Currently amended) A method of correcting a mutation in a tyrosinase gene in cells of a mammalian skin in vivo which comprises delivering to said cells at one or more locations of the mammalian skin an effective amount of a composition comprising a Tyr-A RNA-DNA oligonucleotide for causing stable genetic correction ~~from~~ in the tyrosinase gene and a pharmaceutically acceptable carrier such that the correction results in restoration of tyrosinase enzyme activity lasting for more than one hair cycle and leading to development of dark pigmented hairs at said locations of the mammalian skin, wherein the mammalian skin is selected from the group consisting of a human and a mouse.

Claim 41. (Previously presented) The method of claim 40, wherein the composition is delivered by topical application.

Claim 42. (Previously presented) The method of claim 40, wherein the composition is delivered by intradermal injection.

Claim 43. (New) A non-human animal model having a skin disorder at one or more locations of its skin wherein the skin disorder is a result of a treatment at said locations with a composition comprising a chimeric RNA-DNA oligonucleotide having a double hairpin structure with pyrimidine loops targeted to a selected skin gene, said oligonucleotide thereby causing a mutation in the selected skin gene which mutation leads to the skin disorder, in said animal model, and said animal model is incapable of germline transmission of the mutated gene,

wherein the skin disorder is epidermal fragility disorder, keratinization disorder or albinism disorder.

Claim 44. (New) The non-human animal model of claim 43, wherein the skin disorder is epidermal fragility disorder.

Claim 45. (New) The non-human animal model of claim 43, wherein the skin disorder is keratinization disorder.

Claim 46. (New) The non-human animal model of claim 43, wherein the skin disorder is albinism disorder.

Claim 47. (New) The animal model of claim 43, wherein the selected skin gene is Tyr, COL7A1, LAMA3, LAMB3, LAMC2, COL17A1, ITGA6, ITGB4, PLEC1, KRT5, KRT14, PKP1, KRT1, KRT10, KRT9, KRT16, LOR, 1998, KRT2e, KRT6a, KRT 16, KRT 17, STS, TGM1, GJB2, GJB3, ATP2A2, DSP, DSG1, HR, hHB1, hHB6, PAX3, TYR, TYRP-1, OCA2, OA1, MITF, HPS, FECH, UROS, URO-D, PPO, XPA, XPB, XPC, XPD, XPG, PTC, STK11/LKB1, PTEN, PTEN, XPB, XPD, WHN, GLA, ATM, ENG, ALK-1, a cytokine BPAG2 or DSG3 gene.

Claim 48. (New) The animal model of claim 47, wherein the selected gene is Tyr gene.

Claim 49. (New) The animal model of claim 47, wherein the selected gene is COL7A1 gene.

Claim 50. (New) The animal model of claim 47, wherein the selected gene is KRT17 gene.

Claim 51. (New) The animal model of claim 50, wherein the skin disorder is due to generation of a mutation in the selected skin gene.

Claim 52. (New) The animal model of claim 51, wherein the mutation is a point mutation or a frame shift mutation.

Claim 53. (New) The animal model of claim 51, wherein the mutation is a dominant mutation.